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ABSTRACT

This paper considers the theoretical positions that ground teacher education programs and asks whether these theories reflect the experiences and voices of all society or merely those of the dominant culture. The paper proposes the incorporation of elements of critical pedagogy as taught by Paulo Freire and reflective thinking according to John Dewey's philosophy as bases for a teacher education program that would engender critical reflectivity. The emerging conception of critical educational psychology presented in the paper embodies the notion that current use of traditional psychological theories in the classroom perpetuates the ideologies of the dominant social order. Also, the prevalent information-processing model of learning engenders a technocratic approach to teaching and teacher preparation. Through the process of critical reflectivity, preservice teachers are encouraged to examine and expose the culturally reproductive aspects of the current use of the traditional psychological theories, seeing them in part as institutional supports for the dominant social order. A preservice teacher in a critical educational psychology course is seen not merely as a technician who reproduces the culture as it stands but rather as an intellectual capable of transforming self and society through the act of teaching. (JD)

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The Use of Psychological Foundations to Inform Teaching for Critical Reflectivity

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Introduction

If schools are ever to respond to George Counts' challenge of trying to create a more just, democratic, and humane social order, and if students are to become truly active and responsible citizens in such a democratic social order, then the type of schooling that society currently provides for its youth must be examined seriously. In particular, careful and critical consideration must be given to the ideas and theories that make up teacher education programs. Spring (1989) suggests that theories and ideas are chosen by public schools for their match with institutional and organizational needs rather than for the validity of the theory itself. If this is so, one might ask the following: What are the theoretical positions that ground teacher education programs? Do these theories reflect the experiences and voices of all of society or merely those of the dominant culture? Will these ideas help teachers and prospective teachers enrich their own lives and the lives of their students? How can these theories and ideas be used in a teacher education program to empower educators in their struggle to create a more just, democratic, and humane society? It is argued in this paper that these questions are not routinely raised in teacher education, and that the failure to raise them works against the goals of creating such a society. To correct for this apparent error, the paper proposes the incorporation of elements of critical pedagogy and reflective thinking as bases for a teacher education program

that engenders critical reflectivity.

Specifically, this paper addresses the role of psychological foundations of education in undergirding a teacher education program geared for critical pedagogy. The beginnings of a reconfigured model of educational psychology will be presented from a standpoint which criticizes and rejects many of the dominant themes in traditional educational psychology curriculum. The terms "critical reflectivity," "critical pedagogy," and "critical educational psychology" are used to make explicit the need for uncovering the mystifying and misleading aspects of current theory that dominates the psychology of teaching, exposing its operating as a vehicle for oppression rather than liberation, as well as the need for preparing teachers to practice in ways more consistent with the goals of a democratic society.

Stated differently, the emerging conception of a critical educational psychology presented in preliminary form here embodies the notion that current use of traditional psychological theories in the classroom perpetuates ideologies of the dominant social order and engenders a technocratic approach to teaching and teacher preparation. Through the process of critical reflectivity preservice teachers are encouraged to examine and expose the culturally reproductive aspects of the current use of those psychological theories, seeing them in part as institutional supports for the dominant social order. In addition, preservice teachers explore alternative ideas that

enhance their understandings of the concepts of human agency, motivation and learning, and human growth and development. Further, critical educational psychology stresses the need for the psychological growth and development of educators. A critical examination of one's own psychological development is suggested by examining characteristics of the personal and the collective and how these characteristics interact in shaping students views of self and others. Concepts such as gender, patriarchy, and the idea of the unconscious, not traditionally used in educational psychology courses, are considered. In short, a preservice teacher in a critical educational psychology course is seen not merely as a technician who reproduces the culture as it stands but rather as an intellectual capable of transforming self and society through the act of teaching (Gramsci, Giroux, Freire).

This paper serves as an introductory and preliminary effort at illustrating the differences between a traditional approach to educational psychology and one that focuses on critical reflectivity. It will first provide a brief historical sketch of educational psychology as an emergent field of study. In so doing, the paper will overview the concept of learning from the dominant, behavioristic orientation, with a historical illustration of some effects of such a view on teaching and teacher education. This dominant view will be extended in the historical example to include an information processing analogy of learning that grew out of a concern that students lacked

"problem solving" skills. Following this overview is a critique and reconstruction of learning that relies less on stimulus/response, input/output psychology and more on the active interplay of persons in a complex social, political, economic, and cultural context. The paper culminates in a discussion of how views of teaching and learning and resultant teacher behavior might change in light of the reconstructed account of learning. While a number of other concepts besides learning are obviously addressed in educational psychology, and while they are all important to any reconfiguration of the educational psychology component of preservice teacher preparation, to address all of them is beyond the scope of one paper presentation.

Major Influences on the Development of Educational Psychology

Traditionally the content of educational psychology has been drawn from many psychological concepts and theories, but the influences of some have been greater than others. This section will explore a selection of the dominant influences on educational psychology as a basis upon which to build an examination and critique of the effects of teaching such content to prospective teachers.

The debate over what content and concepts should comprise courses in what is now called educational psychology reaches back at least to the early 1800s. Many have argued over the definition and the nature of educational psychology (Note 1). Educators were intrigued by the idea of a science of the mind and

were interested in the study of the mental development of children. Courses addressing questions pertaining to mental phenomena were seen as early as 1839 in schools preparing teachers. As quoted in Charles, in his 1887 address to the National Education Association convention, S.S. Parr stated, "educational psychology is commonly interpreted to mean the study of general psychology, with stray observations about children's minds" (1987, p. 20). Psychological theories of the mind and its functioning became central course content for teachers and teacher trainees.

In 1903, E.L. Thorndike is given credit for being the first clearly to define educational psychology to mean "offering of the knowledge of human nature to students of educational theory" (Thorndike, quoted in Glover & Ronning, p. 5). He emphasized that human nature was to be understood by examining the laws of learning and motivation. Learning occurred when a response and a reaction were connected within the mind. In addition, this bond was able to be strengthened by the continual repetition and rewarding of the response. Thorndike was a forerunner to the behavioristic movement and was the first to use instrumental conditioning.

Thorndike believed in an empirical approach to explain educational problems and was a proponent of standardized testing. He believed that by testing individuals their intelligence could be measured and appropriate vocational matches could be made. As a strict hereditarian and eugenicist, he believed that there were

biological differences in intelligence between males and females and among the various racial and ethnic groups. The prime responsibility of education and society was to take advantage of those differences. The measurement of learning outcomes and the testing movement that dominates schooling today is in part a vestige of Thorndike's powerful influence in the field of educational psychology (Kratochwill & Bijou).

The work of Thorndike and the early behaviorists has been extended and elaborated by a number of other psychological theorists, the most notable, perhaps, being B.F. Skinner. Skinner posited that heredity played much less a role in intelligence than Thorndike might have one believe, and that mentalistic concerns were not necessary to understand human learning and behavior. In fact, he believed that the use of mentalistic concepts worked to obscure what in many ways was a fairly simple process. In Skinner's view, animals, whether they be human or not, operated with a number of reflexive behaviors, supplemented by other freely emitted, or operant, behaviors. The relative number of reflexive behaviors to operant behaviors decreased as one traveled up the phylogenetic scale. While Pavlov showed that reflexive responses can in fact be modified through pairing previously neutral (conditioned) stimuli with stimuli (unconditioned) that automatically elicit responses, Skinner and others believed that this classical conditioning accounted for relatively little of the behavioral change, or learning, that occurred in humans.

In Skinner's view, learning occurred as a result of various stimulus-response contingencies. Stated simply, behaviors tended to be repeated (learned) if those behaviors were followed by rewards or reinforcers, or if those behaviors served to remove the person from aversive conditions. There was no need in Skinner's scheme to consider mental states relative to learning; learning occurred as a result of the consequences of behavior and was indicated by a change in that behavior (Skinner, 1938; 1948).

The Impact on Teaching and Schooling

The focus in Educational Psychology on the conditioning, modification, and control of observable behavior fits quite nicely with the role of schooling as it evolved in the United States since the 1840's. Prior to the onset of the first phase of industrialization, urbanization, and immigration, the society was in no great need of an institution to serve as an induction for children from the life of the family to the life of the community. The private life of the family blended imperceptibly into the public life of work and the community. Informal education as transmitted by the home and community served quite well as a means to preparing the young for adult roles and responsibilities. But with the vast social changes brought about by the factory system, increased concentration of the population in cities, and the influx of "New Americans", a formal institution (schooling) was needed as a vehicle for social control (Bailyn).

The social control function of schooling expanded in the

late nineteenth and early twentieth centuries, with the rise of the corporate state, further population concentration in the cities, and expanded immigration (Tyack; Spring, 1989; Callahan). This need for control often superseded the supposed purpose of schooling to provide for an "educated citizenry" (Pratte, 1975). As the twentieth century unfolds, specific social, economic, and political conditions continue to change, but the primary role of the school remains one of providing a means to stasis.

An Illustration

Perhaps an example from recent history might serve to illustrate the connection between schooling generally and behavioristic psychology in particular relative to the process of social control. According to Spring (1988), in the 1960s and 70s the schooling system was called upon to reestablish law and order in reaction to political movements such as the Vietnam War protests and societal ills such as drug abuse, violence, and crime. Behaviorism, which stresses the management and control of behaviors, became a major emphasis in the psychological foundations of education. Educators embraced the behavioral theory of learning which views the organism as a relatively passive object to be molded via rewards and punishments. Schooling practice centered upon the modifying or molding of the student to existent social, behavioral, and intellectual standards.

As stated earlier, learning in this context is seen as an observable change in behavior that occurs when stimuli and

responses are associated. Environmental agents (stimuli) act on the organism to create behavioral changes (responses). Thorndike, Watson, and Skinner, among others, stated that the learning process is controlled by elements external to the learner and that certain mechanistic principles can be followed to obtain desired behaviors. Because the learner is presented as passive by behavioristic theories, and because preservice teachers have been taught not only about but also through such techniques of behavior management, they come to believe that they can and should control and manage the learning process of their students. This in turn leads preservice teachers to view learning as an overly technical or mechanistic process. They are required by teacher educators and later by school administrators to develop long lists of behavioral objectives which demonstrate the proper use of reinforcement and conditioning skills. Student behavior can then be modified under the guise that these behaviors mean that a child has learned something.

As teachers found it increasingly difficult and cumbersome to follow lesson plans based solely on behavioral objectives, and as the cry from corporate America, the press, and the Reagan administration for a more rigorous academic curriculum grew in strength, educational emphases moved to problem solving and decision making strategies (Spring, 1988). In order to meet these educational goals, cognitive theories of psychology began to appear with greater frequency in the educational psychology curriculum. Instead of being concerned simply with overt

behavioral responses, cognitive psychology examines mental processing and metacognition, or students' awareness of their own thinking processes.

The cognitive model most often used in educational psychology courses to represent cognitive functioning is an information processing model. Put simply, the learner is compared to a computer into which information is entered, transformed or manipulated, stored, and retrieved when the task demands or when learning situations are set up appropriately. According to cognitive theorists this model leads to the development of cognitive skills such as recoding, reduction, elaboration, storage, and retrieval that can be taught in a step by step procedure, thereby enhancing information processing abilities. Once students have been made aware of these strategies and have been taught how to perform them, they are assumed to be better able to solve problems methodically and accurately.

Cognitive theory is in many ways quite different from the earlier behaviorism and presents a somewhat less passive view of the human. However, it continues to put forth the idea that learning is a mechanistic process and that the end-product of learning is a neatly and correctly solved problem. The nature of the problem, the definition of what is to count as a problem, and the correct resolution are all outside the province of student thinking. Preservice teachers again are lead to believe that learning is a highly technical, linear, and hyperrational

process. Teaching is seen as a compilation of techniques of "inputting" information into the students' "sensory registers," where it is transformed and "encoded" and made available for later "retrieval." The result is a view of students as computers being operated upon by teachers/programmers.

Learning and Critical Educational Psychology

In an effort at illustrating how critical theory and reflective thinking might blend in the service of a more empowering notion of learning, the concept is briefly explored using ideas from Dewey and Freire. These writers openly dismiss the fundamental passivity of the learner so central to behaviorism and restore the notions of subject and human agency as necessary conditions for learning and teaching. Further, the view of teaching as an act of technical rationality, whether it be relative to stimuli and responses or to programming and information processing, is seriously questioned. While a full treatment would be quite informative and worthwhile, no such treatment is attempted here. What is provided is merely a selection of ideas for reconfiguring learning as it is taught to preservice teachers.

Dewey and Freire

While Dewey is probably the most widely respected American educational philosopher in history, his ideas rarely surface in educational psychology courses. In a reconfigured model of educational psychology his ideas regarding reflective thinking and learning can be drawn upon to empower preservice teachers and

enhance their understanding of human agency. For Dewey, learning results from a transaction between the individual and the environment. The nature of the transaction is quite different from that proposed by behaviorists, however. The primary agent is the learner, who must actively reorganize and reconfigure incoming information through reflective thought (1933).

Dewey views reflective thinking beginning at the point at which routine action is disrupted. One then must pause and consider alternatives to the routine. These alternatives are examined with respect to the facts of the matter to define the problem more clearly. With the problem in better focus, hypotheses are generated and their ramifications examined. The culmination of the reflective process is acting on one of the hypotheses, in an attempt at verification. Should the hypothesis tested be verified, the state of perplexity is resolved and coherence reestablished. Action can proceed with new and deeper understanding of one's situation.

The process of learning, of coming to know, centers on the transaction between the person and the environment for Dewey. In other words, his is a theory that constantly stresses the interplay between the "psychological", or inner world of the learner and the "logical", or outer world. Reflective thinking is an intentional act of creating meaning, grasping the previously unrecognized relationships between and among elements of problematic situations. One is consciously trying to make sense of a confusing, vague experience.

Dewey suggested that learning is a process of reconstruction or reorganization of experience so that experience becomes meaningful. He distinguished between learning and training in that learning occurs when the individual is the reorganizing agent of experience. Training occurs when the experience is controlled or managed by an external force, such as in behavioristic theory. Dewey's idea of learning is tied inextricably to thinking and reflectivity. By contrasting behavioristic "training" with Dewey's notion of "learning," preservice teachers must confront questions that are omitted or obscured by mainstream educational psychology. The nature of subjectivity in problem recognition, formulation, elaboration, and resolution can never be addressed in a behavioristic framework. Dewey allows one to seat the act of learning within the control and agency of the learner.

Freire also emphasizes the role of the learner as being one of active participation in the world and "dialogue" with the teacher. He contrasts what he refers to as "problem posing" education, or education in which the teacher takes on aspects of the student role and the student aspects of the teacher role in an effort at active resolution of educational problems, with the "banking" notion of education. In the banking concept, the teacher "deposits" knowledge into the heads of the students. The transaction is always in the same direction--from teacher to student--and the nature of knowledge is never viewed as problematic or mutually debated and agreed upon.

Freire sees the banking concept of education as a central instrument of oppression, both political and intellectual.

> Those truly committed to liberation must reject the banking concept in its entirety, adopting instead a concept of men (sic) as conscious beings, and consciousness as consciousness intent upon the world. They must abandon the educational goal of deposit-making and replace it with the posing of the problems of men in their relations with the world. "Problem-posing" education, responding to the essence of consciousness--intentionality--rejects communiques and embodies communication. ...
>
> Liberating education consists in acts of cognition, not transferrals of information. It is a learning situation in which the cognizable object (far from being the end of the cognitive act) intermediates the cognitive actors--teacher on the one hand and students on the other. Accordingly, the practice of problem-posing education entails at the outset that the teacher-student contradiction be resolved. Dialogical relations--indispensable to the capacity of cognitive actors to cooperate in perceiving the same cognizable object--are otherwise impossible. (Freire, 1970, pp. 66-67)

Freire thus rejects the passivity of the learner so central to the principles of Thorndike, Skinner, and the rest of the behavioristic school. Similar to Dewey, learning for Freire grows out of the transaction of teacher and student as interdependent subjects in a problematic situation. Both teacher and student act on the problem at hand; and without such mutual and reciprocal action, learning is not likely to occur.

Conclusion

When students of teaching are faced with the ideas of Dewey and Freire, and are asked to reflect upon their own learning experiences, they must resolve a problem that they never would have faced directly using only behavioristic principles. They

must now consider in very significant ways the world of experience that the learner brings to a situation. In this context, questions of race, class, ethnicity, gender, age, and exceptionality are all prominent as they can dramatically affect the teaching/learning transaction. The social and cultural context within which the educational exchange spins becomes central to teaching and learning. Students must consider the perceptions of the learner regarding the concept to be learned, and they must do more than modify behavior by manipulating reinforcements and (perhaps) punishments.

As was stated at the outset, this paper is a work in process. The scope was intentionally narrowed in an effort at illustrating or suggesting ways that educational psychology might be reconstructed to better serve a conception of teaching as an act with political as well as intellectual impact. The reconceptualization needs to be carried further and in many new directions. In particular, there is a wealth of information and powerful concepts that impinge directly on the notion of learning in much of the feminist writings, both historical and contemporary. Those writings were not addressed in this paper but are a focus in another work already begun. There are resources and guides for reforming approaches to educating our teachers for empowerment of students and for social reconstruction. This paper is a part of such a reform effort.

NOTE 1

A detailed and comprehensive account of the evolution of educational psychology as a field of study can be found in the book, Historical Foundations of Educational Psychology, edited by John A. Glover and Royce R. Ronning. This text provided much of the information upon which the brief history of educational psychology in this paper was based. Readers interested in a more extensive treatment are therefore referred to this text.

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